Weekly Report

01/12/2015-01/18/2015

Research

This week, I have read "Understanding individual human mobility patterns"[1]. In this paper, authors found that the distribution of displacements over all users is well approximated by a truncated power-law:

$$P(\triangle r) = (\triangle r + \triangle r_0)^{-\beta} exp(-\triangle r/k)$$

where $\triangle r$stand for step size. Besides, they determined the radius of gyration distribution $P(\triangle r_g)$ and found that:

$$P(\triangle r_g) = (\triangle r_g + \triangle r_g^0)^{-\beta_r} exp(-\triangle r_g/k)$$

I think radius of gyration is much more useful to distinguish users which can added into our work as a feature.

Plan for next week

- Read the Java program and try to write some functions.

References

[1] Marta C Gonzalez, Cesar A Hidalgo, and Albert-Laszlo Barabasi. Understanding individual human mobility patterns. *Nature*, 453(7196):779–782, 2008.